



UNITED STATES PATENT AND TRADEMARK OFFICE

PS
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,968	11/07/2001	Abu Amanullah	2001P04224US01	2738
7590	12/29/2005		EXAMINER	
Siemens Corporation Attn: Elsa Keller, Legal Administrator Intellectual Property Department 186 Wood Avenue South Iselin, NJ 08830			SAMS, MATTHEW C	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/005,968	AMANULLAH ET AL.	
Examiner	Art Unit		
Matthew C. Sams	2643		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10/21/2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1 & 2 is/are allowed.

6) Claim(s) 3-14 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. ____ .
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: ____ .

DETAILED ACTION

Response to Amendment

1. This office action has been changed to reflect the amendment filed on 10/21/2005.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 3, 5, 6 and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Petersen et al. (US-5,296,821 herein after, Petersen).

Regarding claim 3, Petersen discloses a method for use in a telecommunications transmitter, comprising a transmit power, level detector and transmit DAC values. (Col. 6 lines 5-7, Col. 7 claim 7) Petersen discloses a set power level, setting an initial transmit DAC value, determining the output of the level detector, comparing the output level to a nominal value, adjusting the output value so that it equals the nominal value and extrapolating past DAC values if the power level is less than a predetermined threshold. (Col. 7 claim 3 and 7)

Regarding claim 5, Petersen discloses a radio transmitter system with a variable gain amplifier and a means for adjusting the amplifier when it is greater than a predetermined threshold. (Col. 6 lines 5-7 and claim 1)

Regarding claim 6, Petersen discloses a radio transmitter system that can extrapolate a low power level. (Col. 5 lines 31-49)

Regarding claim 8, the limitations of the claim are rejected as the same reasons set forth in claim 1.

Regarding claim 9, Petersen discloses a power controller that can adjust a power value based on an output of the power adjustment unit. (Col. 7 lines 33-38)

Regarding claim 10, Petersen discloses extrapolation derived from past values on a power curve. (Col. 5 lines 31-35)

Regarding claim 11, the limitations of the claim are rejected as the same reasons set forth in claim 1.

Regarding claim 12, Petersen discloses a power controller that is adapted to adjust the gain level of a power amplifier. (Col. 5 lines 50-59)

Regarding claim 13, the limitations of the claim are rejected as the same reasons set forth in claim 10.

Regarding claim 14, Petersen discloses a telecommunications device that includes a transmitter and power amplifier controlled by a DAC. (Fig. 4, 5 and Col. 7 claim 7) Petersen discloses a level detector to determine a power level with respect to a threshold. (Col. 5 lines 31-33) Petersen discloses a power controller adapted to adjust a DAC value based on extrapolation if the level is below a threshold. (Col. 5 lines

31-35) Petersen discloses a power controller that adjusts the value of the DAC based on the detected power level and its relation to the threshold value. (Col. 7 claim 7)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen in view of Medl et al. (US-6,711,389 herein after, Medl).

Regarding claim 4, Petersen discloses all of the limitation of claim 3. Petersen differs from the claimed invention in failing to state that the threshold defines a linear region of a coupler vs. transmit power response. However, Medl discloses a power controller for a mobile terminal that includes a transmitter. Medl discloses a plot that clearly shows a linear region and defines the output power vs. a variable gain amplifier. (Fig. 6 and Col. 5 lines 23-26) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to want to operate an amplifier in the linear region. One of ordinary skill in the art would have been motivated to do this since operating amplifiers in the linear region leads to stable operation.

Regarding claim 7, Petersen discloses all of the limitations of claim 5 and 6. Petersen differs from the claimed invention in failing to state that a slope calculation will be made during extrapolating. However, Medl discloses a slope calculation while

extrapolating. (Col. 5 lines 31-50) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the extrapolation calculation of Petersen with the slope calculation of Medi. One of ordinary skill in the art would have been motivated to do this since it allows for an accurate determination of values for the power control algorithm. (Col. 5 lines 31-50)

Allowable Subject Matter

6. Claims 1 & 2 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter:

Applicant's invention is drawn to a power controller for a transmitter that measures and compares the coupled value of a power amplifier to a predetermined low power threshold:

- wherein if the coupled value is lower than the predetermined low power threshold, a low power extrapolation occurs.
- wherein if the coupled value is above the predetermined threshold but not equal to a predetermined set value, a control value is adjusted until the measured value is substantially equal to the set value.

Applicant's independent claim 1 recites, *inter alia*, a system comprising a transmitter that includes a power amplifier, a power controller adapted to receive a coupler value of a power level at the output of the power amplifier, wherein if the power level is above a predetermined low power threshold and if the coupler value is not equal

to a set value, a control value is adjusted until the coupler value is substantially equal to the set value, or perform a low power extrapolation if the power level is below the predetermined threshold. Applicant's claim 1 comprises a particular combination, which is neither taught nor suggested by the prior art.

Accordingly, Applicant's claims are allowed for these reasons and for the reasons recited by the Applicant in the Amendments filed on 3/28/2005, 8/22/2005 and 10/21/2005.

Response to Arguments

8. Applicant's arguments filed 10/21/2005 have been fully considered but they are not persuasive.
9. The Applicant has amended independent claims 3, 5, 8, 11 and 14 to make the previously stated "threshold" a "low power threshold", but fails to define how the "low power threshold" differentiates from the original threshold. Therefore, the rejection for claims 3-14 stand because they do not contain the limitations found in claim 1.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-6,721,368 to Younis et al. regarding a transmitter for communications systems.

US-5,732,341 to Wheatley, III regarding a method for increasing receiver immunity to interference with a threshold for the AGCs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571)272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCS
12/22/2005

ducnguyen
DUC NGUYEN
PRIMARY EXAMINER